REMARKS

Favorable reconsideration is respectfully requested. Claims 17-36 are pending.

Before turning to the claims, a brief discussion of an embodiment of this application's disclosure is provided. Disclosed is a process for the production of a curved laminated glass pane 1 including two glass glazings 2 which sandwich an interlayer 3 comprising a thermoplastic functional layer 5 and at least one layer of a bonding resin 4, as illustrated in Fig. 1. The layer of bonding resin is adhered to the functional layer 5 and the resulting interlayer 3 is heated. During such heating, a hot air jet is injected from the bottom so as to effect a pretensioning of the functional layer 5, as discussed in paragraphs 38 – 41. The interlayer 2 is then formed into shape by molds 12 and 13, as discussed in paragraph 42. While still being held between the molds 12 and 13, the interlayer 3 is then cooled by forced draught, whereby the shape of the functional layer 5 is frozen, as discussed in paragraph 43. Finally, the interlayer 3 is positioned between the two glass glazings 2, and pressure and heat are applied, so as to form a laminated glazing, as discussed in paragraphs 46 – 47.

Claim 17, the only currently pending independent claim, is rejected as being unpatentable over Kavanagh in view of Balduin and Mattinoe.

Claim 17 recites a process for the production of a curved laminated glass pane including an interlayer of a thermoplastic functional layer and a layer of a bonding resin. The process includes thermoforming on a mold the thermoplastic functional layer, together with the layer of bonding resin adhered to the thermoplastic functional layer, and positioning the interlayer between two glass glazings and

applying pressure and heat to form a laminated glazing. Before the thermoforming step, the thermoplastic functional layer and the layer of bonding resin are heated and, during such heating, a hot air jet is injected from the bottom so as to effect a pretensioning of the functional layer. After the thermoforming step and before positioning the interlayer between the two glass glazings, the functional layer and the layer of bonding resin are cooled by forced draught, whereby the shape of the functional film is frozen.

Kavanagh discloses a method of forming a shaped laminate. In the disclosed method, a composite 70 is clamped within the apparatus illustrated in Fig. 3. As discussed in the paragraph starting on line 11 of page 10 of Kavanagh, a heater 48 raises the temperature of the composite 70 at a suitable rate to a shaping temperature, and pressure is used to draw and stretch the heated composite 70 against a molding surface 27 of a shaping mold 26 so as to form a shaped laminate 82. Then, as discussed in the next paragraph, the heater 48 heats the laminate 82 to a temperature above the shaping temperature while the laminate 82 is held against the mold surface 82 for a predetermined time sufficient to relieve stresses developed in the laminate 82 during the prior stretching step. The heater 48 is then turned off and the laminate 82 allowed to cool, as discussed in lines 9-13 of page 15 of Kavanagh. The laminate 82 is then laminated between cooperating glass sheets, as discussed in lines 27-30 of page 15 of Kavanagh.

As correctly noted in the Official Action, Kavanagh does not disclose injecting a hot-air jet from the bottom so as to effect a pretensioning of the functional layer. The Official Action goes on to take the position that an ordinarily skilled artisan would

have been motivated to substitute Balduin's hot-air blower for Kavanagh's heater 48. Applicant does not agree.

Balduin discloses an apparatus for laminating glazing assemblies including a heating chamber 7 and a pressing chamber 9. As discussed in paragraph [0038] of Balduin, the heating chamber 7 is heated to the melting point of an adhesive film for heating pre-forms 1, and the heated pre-forms 1 are transported to a pressing chamber 9 without modifying the temperature. Balduin is clearly not interested in using a heating device for varying the temperature within a chamber during processing.

In Kavanagh, on the other hand, the heater 48 varies the temperature in the apparatus in a multi-step process, as discussed above. There is no suggestion in either Kavanagh or Balduin that a hot-air jet would have been suitable for this type of heating. Thus, an ordinarily skilled artisan would not have been motivated by Balduin to substitute a hot-air jet for Kavanagh's heater 48.

Moreover, even assuming that some basis exists for replacing Kavanagh's heater 48 with a hot-air jet, neither Kavanagh nor Balduin discloses or suggests injecting hot air into the bottom of Kavanagh's apparatus so as to effect a pretensioning of Kavanagh's composite 70. Indeed, pretensioning of the composite 70 is at odds with Kavanagh's above-discussed heating so as to relieve stress.

The Official Action also correctly notes that Kavanagh does not disclose cooling Kavanagh's laminate 82 by forced draught. The Official Action goes on to take the position that an ordinarily skilled artisan would have been motivated to employ Mattimoe's air impingement cooling plenums to cool Kavanagh's laminate 82 by forced draught. Applicant does not agree.

Mattimoe discloses an automotive glazing structure including a polyethylene terephthalate film of a protective layer 15 which is formed by extruding and doctoring a molten polymer onto a cool casting wheel having air impingement cooling plenums, as discussed in lines 35-53 of column 8. Mattimoe's process of extruding and casting polyethylene terephthalate film of a protective layer is clearly quite different from Kavanagh's above-discussed process of molding a laminate which is laminated between cooperating glass sheets. There is no suggestion in either Kavanagh or Mattimoe that forced-air cooling Kavanagh's molded laminate would have been in any way appropriate or desirable. Thus, an ordinarily skilled artisan would not have been motivated by Mattimoe to modify Kavanagh's process to employ air impingement cooling plenums.

Moreover, even assuming that some basis exists for employing air impingement cooling plenums in Kavanagh's process, neither Kavanagh nor Mattimoe discloses or suggests forced draught cooling so as to freeze the shape of Kavanagh's laminate 82.

For at least these reasons, Claim 17 is allowable over Kavanagh in view of Balduin and Mattimoe, and withdrawal of the rejection of Claim 17 on those grounds is respectfully requested.

The dependent claims are allowable at least by virtue of their dependence from allowable independent claims. Thus, a detailed discussion of the additional distinguishing features recited in the dependent claims is not set forth at this time.

Early and favorable action with respect to this application is respectfully requested.

Should any questions arise in connection with this application or should the Examiner believe that a telephone conference with the undersigned would be helpful in resolving any remaining issues pertaining to this application the undersigned respectfully requests that he be contacted at the number indicated below.

Respectfully submitted,

BUCHANAN INGERSOLL & ROONEY PC

Date: July 23, 2008

By: Peter T deVore

Matthew L. Schneider
Registration No. 32814

Peter T. deVore
Registration No. 60361

P.O. Box 1404
Alexandria, VA 22313-1404
703 836 6620